

## CLAIMS

1. An expression cassette consisting of:

5 - a bacterial promoter, hereinafter called  $p_{zn}$ ,  
containing a binding site for the *Lactococcus lactis* ZitR protein, which site comprises the following sequence:

AAAAATAANGTNNNNNNNTTGACATTATTTTT

(SEQ ID NO:1),

10 in which TTGACA represents the -35 box of said promoter, and N represents A, C, G or T;

- a sequence encoding a polypeptide exhibiting at least 80% identity with the *Lactococcus lactis* ZitR protein, placed under the transcriptional control of  
15 said promoter;

- at least one restriction site allowing the insertion of a nucleotide sequence of interest under the transcriptional control of said promoter.

2. The expression cassette as claimed in  
20 claim 1, characterized in that the  $p_{zn}$  promoter comprises the following sequence:

AAAAATAANGTNNNNNNNTTGACATTATTTTTNNNNNNNNNTATAAT

(SEQ ID NO:2),

25 in which TATAAT represents the -10 box of said promoter.

3. The expression cassette as claimed in claim 2, characterized in that the  $p_{zn}$  promoter comprises a sequence chosen from:

- the sequence:

30 AAAAATAATGTAACTGGTTGACATTATTTTTACTTTGCTATATAATTAACCAGTA  
(SEQ ID NO:4);

- the sequence:

AAAAAATAACGTAACTGGTTGACATTATTTTTCTTTGCTATATAATTAACCAGTA  
(SEQ ID NO:5).

35 4. An expression cassette consisting of:

- a bacterial promoter  $p_{zn}$ , as defined in claims 1 to 3;

- at least one restriction site allowing the insertion of a nucleotide sequence of interest under the transcriptional control of said promoter.

5 An expression cassette resulting from the insertion of a nucleotide sequence encoding an extracellular targeting peptide, and of at least one restriction site allowing the cloning of a nucleotide sequence of interest as a translational fusion with said targeting peptide, under the transcriptional  
10 control of the  $p_{zn}$  promoter, into an expression cassette as claimed in any one of claims 1 to 4.

6. The expression cassette as claimed in claim 5, characterized in that said extracellular targeting peptide is a signal peptide of sequence:  
15 MKKINLALLTLATLMGVSSSTAVVFA (SEQ ID NO: 6).

7. An expression cassette resulting from the insertion of a nucleotide sequence of interest under the transcriptional control of the  $p_{zn}$  promoter, into an expression cassette as claimed in any one of claims 1  
20 to 6, with the exclusion of the expression cassettes comprising all or part of the sequence encoding the *L. lactis* ZitS protein, fused to a reporter gene.

8. A recombinant vector comprising an insert consisting of an expression cassette as claimed in any  
25 one of claims 1 to 7.

9. A gram-positive bacterium transformed with at least one expression cassette as claimed in any one of claims 1 to 7.

10. The bacterium as claimed in claim 9,  
30 characterized in that it is a lactic acid bacterium.

11. The use of an expression cassette as claimed in any one of claims 1 to 7, or of a recombinant vector as claimed in claim 8, for producing a protein of interest in a gram-positive bacterium.